Overall goal: to implement and evaluate the effects of a pharmacist-mediated program designed to improve adherence to lipid-lowering pharmacologic therapy in patients with CHD, and of their physicians to the National Cholesterol Education Program Guidelines.

#### Intervention:

- a computer-based tracking system designed to facilitate follow-up of patients who were initially seen for a coronary clinical event
- an initial inpatient contact and a series of follow-up patient telephone counseling sessions carried out by pharmacists using a patient-centered approach to improve adherence

#### Intervention:

 Pharmacy refill records are used to obtain medication adherence information used in counseling patients and to provide feedback and recommendations to the patients' MDs.

## Study design:

- 800 pts admitted for a clinical CHD event, and recruited from the cardiac catheterization laboratories.
- randomly assigned to a usual care condition or to the special Intervention condition implemented and coordinated by pharmacists.

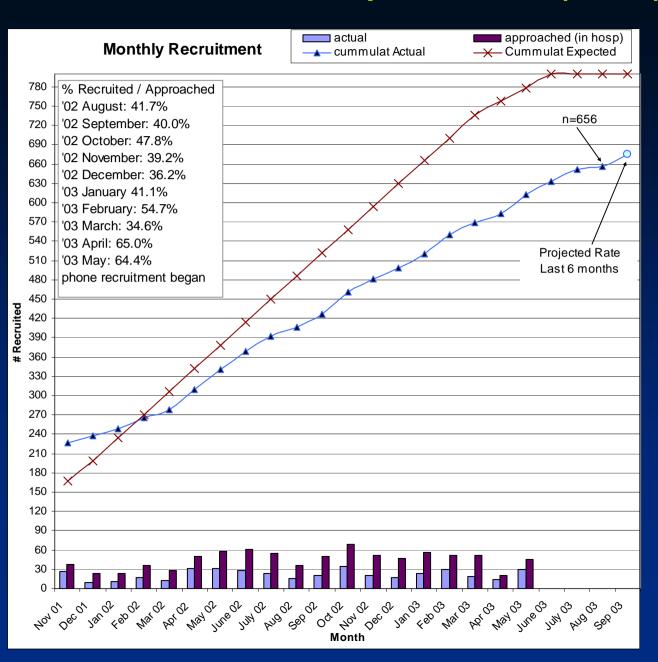
## **Primary Outcomes:**

- Percentage of patients with an LDL level
  <100 mg/dl</li>
- Proportion of prescribed lipid-lowering medication taken by patients as measured by a continuous multiple-interval measure of medication availability (CMA) based on pharmacy records (ratio of days supply obtained to total days in the observation period).

# **Secondary Outcomes:**

- Percentage of patients on pharmacologic lipid lowering therapy;
- Proportion of selected non-lipid-lowering prescribed medication taken by patients as measured by CMA;
- Percentage of patients with an LDL level
  <130 mg per dl.</li>

- 658 subjects have been recruited as of 9/30/03; 22 drops:
  - Participant request (11)
  - deceased (10)
  - MD request (1)
- 37.7% female; 62.3% male.
- 90.0% White, 10.0% Minority.
- 412 subjects have reached 1 year.
- Initial pharmacist visit: 75.2% in-person;
  24.8% phone



# Mean Age by Gender

AGE					
GENDER	N	Mean	Std Dev	Minimum	Maximum
Female	248	60.73	10.44	35.0	84.0
Male	410	57.86	10.15	31.0	86.0

# 1 Year Lipid Info

1 Year Lipid	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	14	3.57	14	3.57
Completed	307	78.32	321	81.89
Refused	24	6.12	345	88.01
Scheduled	3	0.77	348	88.78
Unable	43	10.97	391	99.74
Wants to Reschedule	1	0.26	392	100.00

# 1 Year Medication Refill Data

1-Year Refill	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0=Not Complete	93	23.72	93	23.72
1=Complete	282	71.94	375	95.66
2=Partially Complete	17	4.34	392	100.00

# 1 Year Interview

1 Year Interview	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	27	6.89	27	6.89
Refused	15	3.83	42	10.71
Unable	41	10.46	83	21.17
Yes	309	78.83	392	100.00

# 24 Hour Recalls (diet & activity)

24hr Recall	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	57	14.54	57	14.54
Yes	335	85.46	392	100.00

## Pharmacist counseling calls

#### **Counseling Calls**

2 week calls: 82.0% Complete

1 month calls: 84.2% Complete

3 month calls: 81.1% Complete

6 month calls: 79.0% Complete

9 month calls: 75.9% Complete



# **PACT**What has gone well?

- The interaction between the pharmacists and the patients.
  - rate at which the patients accept the phone calls is very high, remaining above 75% level even out at the 5th phone call.
  - The pharmacists themselves enjoy the interaction
- Obtaining the pharmacy refill data
  - important to provide pharmacies with a specific patient consent for release of this information
  - important to assure them that the fax machine to which they would be sending data was secure.
  - E-mail did not work!

#### **Problems Encountered**

- Recruitment. patients needed for the study far less than the number of patients coming through our catheterization laboratories. But:
  - Chaotic environment, ill & emergent patients
  - Sedation methodology changed during the study
  - Patients are sent home as soon as possible, further limiting the time available to interact with them.
  - Difficulty in recruiting adequate numbers of women and minority subjects.

#### **Problems Encountered**

- Possible selection bias.
  - Tendency both for the recruitment specialists to seek out and for the physicians and nurses to point them towards those patients who are easiest to recruit, i.e., patients who are younger, more alert, and more cooperative.